

**REMARKS**

This Reply is fully responsive to the non-final Office Action mailed on March 14, 2006. Reconsideration and reexamination of the subject application, as amended, pursuant to and consistent with the remarks which follow are respectfully requested.

At the outset the Examiner is thanked for the indication in the Office Action that Claims 235-253 directed to human T1R2 nucleic acid sequences are allowable. In the Office Action and PTOL-326 Claims 254-256 are indicated as being rejected. However, the status of pending Claims 257-267 is not indicated. It is assumed that the present amendments will place all the claims in condition for allowance.

Claims 254-256 were objected on new matter grounds for allegedly not providing basis for the co-expression of T1R2 with other GPCRs and the functional association of transducin with T1R2. This objection is respectfully traversed to the extent it may be applicable to the claims as amended herein.

The objection to transducin is moot as this member has been deleted from the claims. This has been cancelled since the specification does not explicitly exemplify a vector containing a gene encoding this G protein. However, the recitation of Galpha16 has been maintained in the claims since this G protein is specifically mentioned in paragraph 40 of the published patent application especially since the as-filed specification identifies it as a promiscuous G protein similar to Galpha15.

The wording of Claim 256 which is directed to a DNA construct containing T1R2 and another GPCR is maintained. The Office Action suggests that this claim improperly introduces new matter into the as-filed specification. However, this is respectfully traversed. This claim finds at least implicit if not explicit support from Examples 8-11 which teach vectors containing the T1R2 gene and another T1R gene member (which clearly is an example of a GPCR other than T1R2). Withdrawal of the new matter rejection of claims 254 -256 is therefore respectfully requested.

Claims 254-256 also stand rejected based on written description grounds. This rejection is also respectfully traversed to the extent it may be applicable to the claims as amended herein. The rejection with respect to transducin is moot as this G protein is no longer explicitly recited. However, claim 255 which is directed to a DNA construct containing T1R2 and a sequence encoding another G protein is still pending. At the outset Applicants note that the claim does not require that the G protein functionally associate therewith. Therefore, the written description rejection is not applicable to the claim as written. Clearly, the as-filed specification would place a skilled artisan in possession of vectors containing a T1R2 gene and another G protein encoding gene. Also, the published specification makes clear in paragraph [170] that the subject T1R may be screened against different G proteins in assays to ascertain the functional effect thereon. Further, even assuming the claim required functional association of the G protein with T1R2, Applicants still respectfully maintain that it would

not rise to the level of undue experimentation to identify other G proteins that functionally couple with T1R members such as T1R2. In fact the disclosure lists and places the skilled artisan in possession of a number of known and variant G proteins which could be co-expressed with T1R2 using the disclosed expression systems and screened to determine whether this particular G protein associates with T1R2 to result in a functional taste receptor (e.g., a receptor which on expression specifically responds to sweet tastants). This is substantiated by the fact that T1Rs have been shown to functionally couple with a variety of G proteins using the same expression methods and assay methods disclosed in this application.

Also, the written description rejection of claim 256 is respectfully traversed. This claim encompasses vectors containing the T1R2 gene and another GPCR gene. As noted above, at least Examples 8-11 exemplify and describe constructs containing a T1R2 gene and another GPCR (another T1R member). Thus the specification does place a skilled artisan in possession of DNA constructs containing a T1R2 gene and another GPCR. Again it should be noted that the claim does not require that the other GPCR functionally associate with T1R2, only that the construct contain another GPCR gene. Quite clearly the teachings of the specification provide ample written description support for such embodiments of the invention.

Therefore, withdrawal of the 112 written description rejection of claims 254-256 is respectfully requested.

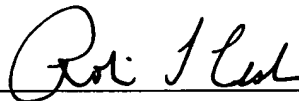
Based on the foregoing, these amendments and remarks should place this application in condition for allowance. A Notice to that effect is respectfully requested.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 50-0206 (Docket #54289US).

Respectfully submitted,

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